# OOCKET FILE COPY ORIGINAL Page 1 of 6 Citizens Communications Company



November 15, 2001

Citizens Communications Company
Cost Submission Filing in Compliance with CC Docket Nos. 96-262, 94-1 /
Cost Review Proceeding for Residential and Single Line Business Subscriber Line
Charge (SLC) Caps

### **Description of the Citizens Filing**

Citizens Communications Company (Citizens or the Company) provides in this filing cost studies to support all study areas currently under its Federal Communication Commission (FCC) FCC No. 1 price cap tariffs. For purposes of this filing, costs are included for all the companies that participate in the following FCC tariffs: Citizens Telecommunications Companies FCC No.1, Frontier Telephone of Rochester FCC No. 1, and Frontier Communications of Minnesota and Iowa FCC No. 1. Cost support was developed at the study area level for each of the three tariffs referenced above.

#### **Cost Study Methodology**

The Company's loop costs are based on a forward-looking TELRIC cost methodology. The forward-looking TELRIC cost of a network element equals the sum of: 1) the total element long-run incremental cost of the element and 2) a reasonable allocation of forward-looking common costs. Citizens used its own internal network cost model to complete cost studies for unbundled network element (UNE) pricing for residence and single-line business unbundled loops. The Company's loop cost model, the CostMap Wireline Model (CMWM) originally purchased from Indetec International, is a comprehensive network costing model that computes UNE investment for unbundled loops using the most efficient forward-looking network design based on Company

specific inputs and engineering rules and practices. The CMWM was used to compute the majority of the cost studies used in this filing. Citizens completed TELRIC-based unbundled loop cost studies for 27 of 32 study areas in its FCC No 1 price cap tariff using this model. For the 28 study areas included in the Frontier FCC No.1 price cap tariffs, a proxy approach was used to estimate the forward looking unbundled loop cost, as described below.

For those study areas in the Company's FCC No. 1 price cap tariffs where TELRIC loop cost studies could not be completed by the filing deadline, the company used the following methodology for forecasting the forward-looking two wire loop costs and the resultant forward-looking interstate loop costs. First the company computed, by study area, the interstate Base Factor Portion (BFP) cost per access line by dividing its 2000 Part 69 interstate BFP revenue requirement by its annualized 2000 access line demand to compute an interstate cost or revenue requirement per line. For study areas in States where the company had completed forward-looking TELRIC loop cost studies, the company computed the relationship between forward-looking TELRIC loop costs and the 2000 BFP revenue requirement per line. This ratio was then used to forecast the TELRIC unbundled loop cost from the BFP revenue requirement per line. For study areas in States where no TELRIC cost studies were completed, a proxy study area was selected as the basis for the computation. To select a proxy study area, study areas were first compared on the basis of loop density, comparing access lines per square mile and second, on the basis of proximity of the BFP revenue requirement per line. Once the proxy study area was selected the relationship between forward looking TELRIC loop costs and the 2000 BFP revenue requirement per line was computed and used to estimate the forward-looking loop cost.

#### **Results**

The results of the Company's TELRIC loop studies and forecasts are detailed by tariff entity on **Exhibit 1**. In all cases, at the Tariff Entity Level, the interstate piece of the TELRIC-based loop costs exceeded \$6.00, or the expected rate the subscriber line charge (SLC) could be increased to following the July 1, 2002 annual price cap filings. Citizens would propose to raise the current SLC for residential and single line business customers to \$6.00 in only those study areas where the interstate two-wire TELRIC exceeds the cap.

#### **Model Description**

The CMWM is state of the art in terms of bottom-to-top network cost modeling and incorporates features similar to both a cost "proxy" model and a company-specific incremental cost model. As a company-specific incremental cost model, the CMWM is a model that reflects Citizens' network, uses company-specific data, and reflects Citizens' engineering practices, not those of a generic provider.

A sound forward-looking cost model should reflect the resources that will be used in the future and the best estimates of the value of such resources. A critique of several TELRIC network cost models is that they often rely on a sample of customers or customers based off some census database. This characteristic has historically limited the use of these models when network cost estimates were required for sparsely populated and small geographic areas like many of those served by Citizen's rural Incumbent Local Exchange Companies (ILECs). The CMWM geocodes actual customer's service addresses from the Company's internal billing systems as the basis of input for the network build in the model. In addition, the CMWM uses actual roads and terrain data as the basis for network design. The CMWM employs the same modeling philosophy as the HAI or BCPM cost proxy models in terms of "building" a wireline network in geographic

space. However, the CMWM is superior to other cost proxy models based on the fact that the CMWM uses actual customer locations within a wire center and lays out the most efficient network configuration to connect these customers to each other and to the serving central office.

In addition, the CMWM takes the next step and lays out the actual path the network is likely to take. The CMWM network follows the actual roads from the central office to each customer's premise and does not use a modeling abstraction such as "square" or "rectangular" serving areas. The customers are placed in the locations that are actually occupied and the CMWM lays the plant required to serve such customers in these locations. Hence, each wire center will have its own unique network configuration. In those instances that customer locations cannot be accurately assigned to the correct street segment, a surrogate location process is used similar to that employed by other cost proxy models. However, since the model uses Citizens' service record addresses, the bulk of customer locations can be accurately assigned to the correct street segment. Surrogating is thus used to locate those few customers that are not included in the geocoding process (i.e., for post office boxes or rural route addresses) and for assigning a location to noncompany households that are within Citizens' wire centers. In fact, the use of Citizens' specific customer data, including each customer's current service portfolio, sets the CMWM apart from other cost proxy models and makes it specific to Citizens.

## **Unbundled Loop Costing**

The unbundled loop as modeled by the CMWM, is the loop portion of the telephone network that extends from the Main Distribution Frame ("MDF") in the wire center to a Network Interface Device ("NID") at the end user's location. The loop is separated into two portions: distribution and feeder. The feeder extends from the MDF to the cross

connect box that serves as the termination point for the feeder. The distribution extends from that point to the NID at a customer premise.

The distribution components used in the Company's unbundled loop studies reflect the network components from the end user's location to a cross connect box. The CMWM computes weighted-average unit investment costs for the following network distribution components:

- 1) Network Interface Devices serves as the interface between the drop wire and the end user's inside wiring.
- 2) Drop Wire used for transport from the distribution terminal to the end user's NID.
- 3) Distribution terminals serves as the cross connect point between the distribution cable and drop wire. This component is calculated using a materials loading factor.
- 4) Distribution Cables used for transport from the cross connect box (Feeder-Distribution Interface) to the distribution terminal near the customer.

The feeder components used in the cost studies reflect the network components from the cross connect box to the wire center. At the wire center, the feeder connects to the Main Distribution Frame (MDF). The CMWM computes weighted-average unit costs for the following network components included in the feeder:

- 1) Feeder-Distribution Interface (FDI or Cross Connect Box) serves as the connecting point between distribution and feeder.
- 2) Digital Loop Carrier serves as a concentrator for distribution to feeder plant.
- 3) Feeder Cable used for transport from the Main Distribution Frame to a Digital Loop Carrier or cross connect box.

TELRIC includes in the cost of network elements, both variable (volume sensitive) and fixed (non-volume sensitive) costs. For retail service cost studies, common overhead costs are those non-volume sensitive costs that are not specifically product or service related and are not included in a typical LRIC analysis.

Annual charge studies were performed to develop the applicable investment-related operating and capital expense factors that were applied to the computed weighted-average unit investment components from the CMWM to arrive at monthly volume sensitive TELRIC costs. These annual cost factors apply to the variable or volume sensitive components of the unbundled loops. Components of Citizens annual cost factors include levelized return on investment, depreciation, income taxes, property taxes, and maintenance. Citizens used its Federal rate of return of 11.25%, and estimated its economic depreciation lives and salvage values. **Exhibit 2** contains a brief description of the annual charge factors used by Citizens.

To calculate the common overhead costs, the Company started with its account balances for common expenses such as accounting, legal, and corporate, etc. (Part 32 - 67XX). Using these account balances, the Company computed its annual common overhead factors based on the relationship between corporate overhead expenses and the Company's Total Plant in Service balances. These common overhead factors were then applied to the TELRIC investments and the result is included in the TELRIC loop cost.

CTC1 Total CTC1 Tariff Entity	850,113	\$	56.98	s	14.24
CTC2 Total CTC2 Tariff Entity	139,197	\$	154.98	s	38.75
CTC3 Total CTC3 Tariff Entity	23,204	\$	28.80	\$	7.20
CTC4 Total CTC4 Tariff Entity	317,636	\$	71.45	\$	17.86
CTC5 Total CTC5 Tariff Entity	16,918	S	49.28	\$	12.32
FTR1 Total FTR1 Tariff Entity	553,802	\$	35.61	\$	8.90
FTR2 Total FTR2 Tariff Entity	264,226	\$	45.84	\$	11.46
FTR3 Total FTR3 Tariff Entity	194,363	\$	49.70	\$	12.43
Total All Study Areas	2,359,459				

					. 2
СТ	C1				
1	Citizens Utilities Rural Company, Inc.				
2	CTC of the White Mountains				
3	CTC of California				
4	CTC of Idaho				
5	CTC of Montana				
6	CTC of New York - Red Hook				
7	CTC of New York - Upstate				
8	CTC of New York - Western Counties				
9	CTC of Tennessee				
10	CTC of Utah				
11	CTC of West Virginia - Bluefield (Urban)	•			
12	CTC of West Virginia - St. Marys (Rural)				
13	CTC of Wisconsin - Crandon				
14	CTC of Wisconsin - Headwaters				
15	CTC of Wisconsin - Rhinelander				
16	CTC of Wisconsin - Rib Lake				
	Total CTC1 Tariff Entity	850,113	S	56.98 \$	14.24
СТ	C2				
17	CTC of Nevada - North				
18	CTC of Nevada - South				
19	CTC of Oregon				
20	CTC of the Golden State				
21	CTC of the Volunteer State				
22	CTC of Tuolumne				
23	CTC of West Virginia - Mountain State				
24	Navajo Communications - Arizona				
25	Navajo Communications - New Mexico				
26	Navajo Communications - Utah				
	Total CTC2 Tariff Entity	139,197	<u>_s</u>	154.98 \$	38.75
CT	C3				
27	Ogden Telephone Company				
	egues surpasse company				
	Total CTC3 Tariff Entity	23,204	<u></u>	28.80 \$	7.20
CT	C4				
28	CTC of Illinois				
29	CTC of Minnesota - Lakes				
30	CTC of Minnesota - South				
31	CTC of Nebraska				
	•	<del></del>	_		
	Total CTC4 Tariff Entity	317,636		71.45 \$	17.86
CT	C5				
32	CTC of North Dakota				
	Total CTC5 Tariff Entity	16,918		49.28 \$	12.32

# CITIZENS COMMUNICATIONS COMPANY EXHIBIT 1 SLC Cost Support For FCC Filing

FT	TR1	55 July 1888 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
33	Frontier Telephone of Rochester		
	,		
	Total FTR1 Tariff Entity	553,802	\$ 35.61 \$ 8.90
FI	R2		
34	Frontier - Ausable Valley		
35	Frontier - New York		
36	Frontier - Seneca Gorham		
37	Frontier - Sylvan Lake		
38	Frontier - Alabama		
39	Frontier - South (AL)		
40	Frontier - South (FL)		
41	Frontier - Fairmount		
42	Frontier - Illinois		
43	Frontier - Lakeside		
44	Frontier - Midland		
45	Frontier - Mt. Pulaski		
46	Frontier - Orion		
47	Frontier - Prairie		
48	Frontier - Schuyler		
49	Frontier - Thorntown		
50	Frontier - Michigan (MI)		
51	Frontier - Michigan (OH)		
52	Frontier - Breezewood		
53	Frontier - Canton		
54	Frontier - Lakewood		
55	Frontier - Oswayo River		
56	Frontier - Pennsylvania		
57	Frontier - Mondovi		
58	Frontier - Wisconsin		
	Total FTR2 Tariff Entity	264,226	\$ 45.84 \$ 11.46
FI	`R3		
59	Frontier - Iowa		
60	Frontier - Minnesota		
	Total FTR3 Tariff Entity	194,363	\$ 49.70 <b>\$</b> 12.43
	Total All Study Areas	2,359,459	

# I. Annual Cost Factors Descriptions

This section contains brief descriptions of the annual cost factors used in Citizens' UNE cost studies.

<u>Equipment Depreciation</u> - The depreciation lives used in the cost study are the estimated economic lives of each asset using Citizens whole life estimates.

<u>Equity / Debt ratio</u> - The ratio used is from the consolidated Citizens annual report.

<u>Cost of Money</u> - The ROI or cost of money factor utilizes the FCC rate of return (11.25%) and levelizes the return on investment over the economic life of the asset. Annual straight-line depreciation is used to arrive at the levelized values.

<u>Equipment Maintenance</u> - Maintenance factors were developed from expense and investment data by reporting entity, by state.

<u>Income tax rate (Effective)</u> - The effective tax rate is developed based on the taxes paid on a return of 11.25% (FCC return rate).

<u>Property tax rate</u> - The property tax rate is a factor based on property taxes paid divided by taxable property, plant, and equipment (PP&E) investment for each state.

<u>Land & Building maintenance</u> - Maintenance factors were developed from expense and investment data by reporting entity, by state.